

Question 1

1. A
2. D
3. C
4. D
5. B
6. C
7. A
8. B
9. B
10. Value : b4
- 11.
- 12.1: 0.5
2: 2
3: 4.5
4: 8
5: 12.5
13. Value : 1
Value : 4
Value : 7
Value : 10
14.
 - a. Incorrect. The code would end up searching for `intArr[9]` which doesn't exist, so you will get an out of bounds error when trying to print it
 - b. Incorrect, there is no inputting of values so you can't display anything
 - c. It is correct, the output will be:
0, 2, 4, 6, 8,

Question 3

- a. It is a method of sorting an array in ascending/decending order looking at 2 elements at a time
- b. $O(1)$
- c. $O(n^2)$
- d. Simple
- e. $O(1)$
- f. $O(n)$
- g. $O(n^2)$

Question 4

- a. It is a method of sorting values in an array in ascending/descending order by looking at 1 element at a time
- b. It looks at an index (starting at 1, not 0) and comparing it to every index before it and checking if the value in the current index is in the correct position. If it is not, it will move it down as many indexes as needed.
- c. $O(n^2)$
- d. For small lists on small databases, it works best with partially sorted lists
- e. Advantages: It is simple to implement and understand, is quite stable
Disadvantages: It is slow and not suited to big lists